Application No.: 09/771,131 2 Docket No.: 02309/000I213-US0

AMENDMENTS TO THE CLAIMS

- 1. (Canceled)
- 2. (Canceled)
- 3. (Canceled)
- 4. (Currently Amended) The top sheet as set forth in claim [[3]] 5, wherein the amount of the particulate material is in a range between 20 and 150 parts by weight relative to 100 parts by weight of the thermoplastic resin.
- 5. (Currently Amended) The A top sheet including a number of perforations for covering a liquid-receiving surface of an absorbent article, wherein; the top sheet is formed of a thermoplastic resin containing at least two differently sized particulate materials having a mean particle size in a range of between 0.1 μm and 30 μm, each mean particle differing in size by at least 9 μm,

the top sheet is provided with fine convex portions defined by exposing a part of the particulate material on a body facing surface of the top sheet and a plurality of protrusions extending from the body facing surface, and height of each protrusion from the body facing surface is larger than that of each fine convex portion therefrom as set forth in claim 1, wherein the and

<u>a</u> mean height of the protrusions from the surface of the top sheet is in a range between 0.05 mm and 1.0 mm.

- 6. (Currently Amended) The top sheet as set forth in claim [[1]] 5, which further includes micropores that allow water vapor to pass therethrough.
- 7. (Currently Amended) The top sheet as set forth in claim [[1]] 5, wherein the protrusions are formed by mechanically stretching the top sheet.

Application No.: 09/771,131 3 Docket No.: 02309/000I213-US0

8. (Currently Amended) A method for producing a top sheet for absorbent article, comprising;

- a) a step of mixing from 20 to 150 parts by weight of [[a]] at least two differently sized particulate material materials, which differ in size by at least 9 μm and have a mean particle size in a range of between 0.1 μm and 30 μm, with 100 parts by weight of a thermoplastic resin, followed by melt-extruding the resulting mixture to form a sheet material, and
- b) a step of partially stretching the sheet material by use of needles to form a number of protrusions having a mean height from the surface of the top sheet in a range between 0.05 mm and 1.0 mm, and
- [[b)]] c) a step of placing the sheet material on the surface of a perforating member, followed by vacuuming the sheet material through perforating holes of the perforation member to perforate the sheet material.
- 9. (Canceled)
- 10. (Currently Amended) The top sheet as set forth in claim [[1]] 5, wherein the particulate material is made of inorganic particles of at least one type selected from a group consisting of titanium oxide, calcium carbonate, soda ash, gypsum, calcium sulfate, barium sulfate, sodium sulfate, magnesium carbonate, magnesium sulfate, clay, calcium phosphate, silicic anhydride, carbon and talc.
- 11. (Currently amended) A top sheet including a number of perforations for covering a liquid-receiving surface of an absorbent article, wherein;

the top sheet is formed of a thermoplastic resin containing [[a]] at least two particulate [material] materials of differently sized inorganic particles having a mean size in a range of between 0.1 µm and 30 µm, each inorganic particle differing in size by at least 9 µm, and

materials partially exposed on a body facing surface of the top sheet and a plurality of protrusions extending from the body facing surface, and a height of each protrusion from the body facing surface is larger than that of each fine convex portion therefrom, and so that apexes of respective protrusions extend toward a wearer's skin beyond apexes of said fine convex portions to define contact points which contact the wearer's skin a mean height of the protrusions from the surface of the top sheet is in a range between 0.05 mm and 1.0 mm.

12. (Currently Amended) A top sheet including a number of perforations for covering a liquid-receiving surface of an absorbent article, wherein;

the top sheet is formed of a thermoplastic resin containing a particulate material at least two differently sized particulate materials having a mean particle size in a range of between 0.1 µm and 30 µm, each mean particle differing in size by at least 9 µm, and

the top sheet includes micropores formed around the particulate material materials, fine convex portions of the particulate material materials on a body facing surface of the top sheet, a plurality of protrusions extending from the body facing surface, and a height of each protrusion from the body facing surface is larger than that of each fine convex portion therefrom, and uppermost portions of respective protrusions defining contact points only at locations where said top sheet comes into contact with a wearer's skin

a mean height of the protrusions from the surface of the top sheet is in a range between 0.05 mm and 1.0 mm.

13. (Currently amended) A top sheet including a number of perforations for covering a liquid-receiving surface of an absorbent article, wherein; the top sheet is formed of a thermoplastic resin containing a

Application No.: 09/771,131 5 Docket No.: 02309/000I213-US0

particulate material at least two differently sized particulate materials, and

the top sheet is provided with fine convex portions defined by exposing a part of the particulate $\frac{\text{material}}{\text{materials}}$ on a body facing surface of the top sheet and a plurality of protrusions extending from the body facing surface, and a height of each protrusion being in a range $\frac{\text{greater than 0.0837}}{\text{between 0.05}}$ mm to 1.0 mm and a mean particle size of said particulate $\frac{\text{material}}{\text{materials}}$ being in a range of 0.1 μ m to 30 μ m, each mean particle differing in size by at least 9 μ m.

14. (Currently Amended) A top sheet including a number of perforations for covering a liquid-receiving surface of an absorbent article, wherein;

the top sheet is formed of a thermoplastic resin containing a particulate material at least two differently sized particulate materials having a mean particle size in a range of between 0.1 μm and 30 μm, each mean particle differing in size by at least 9 μm, and

the top sheet is provided with fine convex portions defined by exposing a part of the particulate material particulate materials on a body facing surface of the top sheet, said fine convex portions including first fine convex portions particles defined by exposing a part of a first particulate material having a first grain particle size and second fine convex portions particles defined by exposing a part of a second particulate material having a second grain particle size which is greater than said first grain particle size.

15. (Currently Amended) A top sheet including a number of perforations for covering a liquid-receiving surface of an absorbent article, wherein; the top sheet is formed of a thermoplastic resin containing a particulate material at least two differently sized particulate materials having a mean particle size in a range of between 0.1 μm and 30 μm,

each mean particle differing in size by at least 9 µm, and

exposing a part of the particulate material materials on a body facing surface of the top sheet and a plurality of protrusions extending from the body facing surface of said top sheet, said fine convex portions including first fine convex portions particles defined by exposing a part of a first particulate material having a first grain particle size and second fine convex portions particles defined by exposing a part of a second particulate material having a second grain particle size which is greater than said first grain particle size, and a height of each protrusion from the body facing surface is larger than that of each fine convex portion particle therefrom so that apexes of respective protrusions extend toward a wearer's skin beyond apexes of said fine convex portions to define contact points which contact the wearer's skin, and

a mean height of the protrusions from the surface of the top sheet is in a range between 0.05 mm and 1.0 mm.

16. (Currently Amended) A top sheet including a number of perforations for covering a liquid-receiving surface of an absorbent article, wherein;

the top sheet is formed of a thermoplastic resin containing a particulate material at least two differently sized particulate materials having a mean particle size in a range of between 0.1 µm and 30 µm, each mean particle differing in size by at least 9 µm, and

the top sheet is provided with fine convex portions defined by exposing a part of the particulate material materials on a body facing surface of the top sheet, said fine convex portions including first fine convex portions particles defined by exposing a part of first a a first particulate material having a first grain particle size and second fine convex portions particles defined by exposing a part of a second particulate material having a second grain particle size greater than said

first grain particle size, said first fine convex portions particles and said second fine convex portions particles being formed by blending said first particulate material and said second particulate material in a ratio of 40:60.

17. (Currently Amended) A top sheet including a number of perforations for covering a liquid-receiving surface of an absorbent article, wherein;

the top sheet is formed of a thermoplastic resin containing a particulate material at least two differently sized particulate materials having a mean particle size in a range of between 0.1 µm and 30 µm, each mean particle differing in size by at least 9 µm, and

the top sheet is provided with fine convex portions defined by exposing a part of the particulate material materials on a body facing surface of the top sheet and a plurality of protrusions extending from the body facing surface of said top sheet, said fine convex portions including first fine convex portions particles defined by exposing a part of a first particulate material having a first grain particle size and second fine convex portions particles defined by exposing a part of a second particulate material having a second grain particle size which is greater than said first grain particle size, said first fine convex portions particles and said second fine convex portions particles being formed by blending said first particulate material and said second particulate material in a ratio of 40:60, and a height of each protrusion from the body facing surface is larger than that of each fine convex portion therefrom so that apexes of respective protrusions extend-toward-a-wearer's skin-beyond apexes of said fine convex portions to define contact points which contact the wearer's skin, and

a mean height of the protrusions from the surface of the top sheet is in a range between 0.05 mm and 1.0 mm.